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81578(6653)

Amendment to the Claims:

1 (currently amended): A method of qualifying a
process tool comprising steps of:
 (a) finding a plurality of pre-scan defect locations on a
surface of a semiconductor wafer;
 (b) subjecting the semiconductor wafer to processing by a
process tool after step (a);
 (c) finding a plurality of post-scan defect locations on
the surface of the semiconductor wafer after step (b); and
 (d) calculating which defects were defect locations added
by the process tool from the pre-scan defect locations and the
post-scan defect locations.

2 (currently amended): The method of Claim 1
further comprising a step of displaying a map of the defects
defect locations added by the process tool.

3 (currently amended): The method of Claim 1
further comprising a step of displaying a scatter plot of a
point representative of a total number of added defects added
by the process tool to the versus a corresponding
semiconductor wafer.

4 (original): The method of Claim 3 further
comprising a step of displaying a selected failure threshold
on the scatter plot.

5 (currently amended): The method of Claim 3
further comprising a step of selecting the point on the
scatter plot to initiate a display of one of a pre-test wafer
map, a post-test wafer map, and an added defect map of defects
added by the process tool to the corresponding semiconductor
wafer.

6 (currently amended): The method of Claim 5

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further comprising a step of associating a spatial signature of ~~the~~ added defects from the added defect map with a process tool malfunction.

7 (original): The method of Claim 1 wherein step (d) comprises comparing a distance between a first point corresponding to a defect location in a first list of pre-test defect locations and a second point corresponding to a defect location in a second list of post-test defect locations with a registration tolerance.

8 (original): The method of Claim 7 wherein the defect location in the second list corresponding to the second point is marked as a non-adder if the distance is less than the registration tolerance.

9 (original): The method of Claim 8 wherein the first list and the second list are sorted by X-coordinate.

10 (original): The method of Claim 9 wherein defect locations in the first list and the second list having identical X-coordinates are further sorted by Y-coordinate.

11 (currently amended): A computer program product for qualifying a process tool comprising:
a medium for embodying a computer program for input to a computer; and
a computer program embodied in the medium for causing the computer to perform steps of:
(a) finding a plurality of pre-scan defect locations on a surface of a semiconductor wafer;
(b) subjecting the semiconductor wafer to processing by a process tool <u>after step (a)</u>;
(c) finding a plurality of post-scan defect locations on the surface of the semiconductor wafer <u>after step (b)</u>; and
(d) calculating <u>which defects were</u> ~~defect locations~~ added

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by the process tool from the pre-scan defect locations and the post-scan defect locations.

12 (currently amended): The computer program product of Claim 11 [[7]] further comprising a step of displaying a map of locations of the defects defect locations added by the process tool.

13 (currently amended): The computer program product of Claim 11 [[7]] further comprising a step of displaying a scatter plot of a point representative of a total number of added defects added by the process tool to the versus a corresponding semiconductor wafer.

14 (currently amended): The computer program product of Claim 13 [[9]] further comprising a step of displaying a selected failure threshold on the scatter plot.

15 (currently amended): The computer program product of Claim 13 [[9]] further comprising a step of selecting the point on the scatter plot to initiate a display of one of a pre-test wafer map, a post-test wafer map, and an added defect map of defects added by the process tool to the corresponding semiconductor wafer.

16 (currently amended): The computer program product of Claim 15 [[11]] further comprising a step of associating a spatial signature of the added defects from the added defect map with a process tool malfunction.

17 (original): The computer program product of Claim 11 wherein step (d) comprises comparing a distance between a first point corresponding to a defect location in a first list of pre-test defect locations and a second point corresponding to a defect location in a second list of post-test defect locations with a registration tolerance.

18 (original): The computer program product of Claim 17 wherein the defect location in the second list corresponding to the second point is marked as a non-adder if the distance is less than the registration tolerance.

19 (original): The computer program product of Claim 18 wherein the first list and the second list are sorted by X-coordinate.

20 (original): The computer program product of Claim 19 wherein defect locations in the first list and the second list having identical X-coordinates are further sorted by Y-coordinate.